≡ Sprint

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EX ~~PARTE~~ OR LATE FILED

EX PARTE

July 11, 1997

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.   Room 222
Washington, D.C. 20554

RE: In the Matter of Federal-State Joint Board on Universal Service -
       CC Docket No. 96-45

Dear Mr. Caton,

Yesterday, representatives of Sprint Corporation met with Commissioner David Baker of the Georgia Public Service Commission and Tiane Sommer, Special Counsel for the Georgia PSC to discuss proxy cost models in the above referenced proceeding. Representing Sprint were Mark Askins and Tony Key.

The attached information was used during the meeting. The purpose of the meeting was to provide information on the Benchmark Cost Proxy Model, which is sponsored by Sprint and U S WEST, to Commissioner Baker and Ms. Sommer as newly named representatives to the Federal-State Joint Board in this matter.

Sprint and U S WEST request that this information be made a part of the record in this matter. Two copies of this letter, in accordance with Section 1.1206(a)(1), is provided for this purpose. The meeting was held in Atlanta, Georgia on July 10, therefore, this notice is provided today.

Sincerely,

Warren D. Hannah

Attachment

c: Attendees

The BCPM

what, why, when,

Sprint

July 11, 1997

BCPM - what (in general)

- ◆ method to determine high cost areas
- ◆ method to determine the cost of a loop for a specific company in a specific spot
- ◆ forward looking costs - - not embedded
- ◆ for USF - - proxy costs - - not actual
- ◆ for UNEs - - Sprint-specific costs
- ◆ can be run by nation, company, state, CBG, or CB

BCPM - why

◆ Telecommunications Act of 1996

- access reform

- universal service

  » what is high cost? how do you know?

  » what are the mechanics of flowing support?

- interconnection

  » unbundled elements (UNEs)

BCPM - why

- ◆ exchange level detail not granular enough
  - – cost variations can be wide
  - – low cost areas and high cost areas coexist in same exchange
  - – potential for arbitrage
- ◆ LECs do not maintain costs in enough detail
  - – exchange level is as far as they go

BCPM - who cares

- ◆ competitive local exchange carriers
  - – may buy unbundled elements
  - – may draw universal service payments since support will be "portable"
- ◆ local exchange carriers
  - – may sell unbundled elements
  - – may draw universal service payments
- ◆ all telecommunications carriers
  - – will pay into the universal service fund

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BCPM - what (some specifics)

- ◆ uses public data
  - – census block group data, terrain data
  - – central office locations, many more
- ◆ designs a local network using tree and branch topology
- ◆ assumes all plant is placed at a single time
- ◆ assumes central office locations are constant

BCPM - what (more specifics)

◆ **feeder plant assumptions**
  - routes intersect at right angles
  - begins at CO and ends at edge of CBG
    » fiber may extend into the CBG so maximum copper length is not exceeded
  - copper ranges in size from 25 pair to 4200 pair
  - fiber ranges between 12 and 288 strand
  - cost includes all structures and all installation
  - fiber and copper share structure costs

BCPM - what (more specifics)

- ◆ distribution plant assumptions
  - – once households are clustered, BCPM assumes uniform distribution
  - – subdivision lots are "built" and cable is run between them
  - – cost includes NIDs, drop, terminals, and installation

BCPM - what (more specifics)

- switching module based on SCIS data
- will account for varying switch sizes
    - » produces either switch-specific or study area costs
    - » permits company-specific vendor discounts
- supports either USF or UNEs
    - » for USF it identifies fixed and variable by location
    - » for UNEs it develops cost primitives
        - flat rated line port
        - usage-based shared switch and trunk investment
        - usage-based tandem switching
        - features

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BCPM - what (even more specifics)

- ◆ density assumptions
  - – seven density groupings
  - – determines mix of aerial and below ground
  - – determines fill factors, cost of placement
- ◆ terrain assumptions
  - – soil data is an input
  - – hardness, depth to bedrock, and depth to water table are all factors in cost of placement
  - – changes in slope increase cost of placement

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Sprint suggestions for FNPRM

- ◆ excerpts from ex parte of May 30
  - – recommended a timeline
  - – suggested engineering certification
    - » does the modeled network actually work?
  - – consider models separately from inputs
    - » all inputs should be public
    - » all inputs should be available to all
  - – collection of national data
    - » needs to commence *soon*
    - » all model sponsors need help on switching inputs

Questions on the Order

◆ excerpts from ex parte of May 30

  – section 251 rural versus section 254 rural

  – what is impact on allocation of high cost loops
    to interstate?

BCPM ENHANCEMENTS

BCPM Joint Sponsors

July 1997

BCPM Enhancements

◆ planned improvements to the BCPM 1.1

- incorporation of unbundled element cost support

- use of a new geographic unit: a dynamic grid

- improved feeder engineering

- improved documentation

- new user interface and reporting modules

- incorporation of other fixes to address other FCC and Joint Board concerns

Incorporation of Unbundled Elements

- ◆ the current BCPM models only USF costs
  - – of course, with company-specific inputs, can model unbundled loops
- ◆ the new BCPM will improve USF costing and address unbundled element costing
- ◆ this will be accomplished by creating new algorithm modules for
  - – transport and signaling

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Improvement to USF Costing

◆ enhanced algorithms developed for:

- loop, switching
- expense, capital costs

Transport Module

- ◆ will dynamically build interoffice rings
  - – incorporates current host - remote relationships
  - – incorporates current tandem placements
  - – utilizes two-ring topology
  - – accounts for company ownership
- ◆ rings can change based upon user input

Loop Module

- ◆ based on current BCPM, but new rural clustering algorithm developed
  - improved wire center boundaries developed from new mapping vendor source
  - input based on census blocks, not CBGs
- ◆ improvements will be made to account for
  - the new geographic unit - the dynamic grid
  - improved feeder engineering

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New Geographic Unit - Dynamic Grid

- addresses the recognized deficiency of the CBG as a engineering unit in rural areas
- grid will vary in size to mimic a distribution area
  - in town, grid can be as small as 2,000 ft x 2,000 ft
  - in rural area, grid can increase in size up to a maximum of ~16,000 ft x 16,000 ft
  - distribution routine will recognize roads and population within the quadrants of each grid

Improved Feeder Engineering

- ◆ main feeder will be "aimed" at the population clusters.
- ◆ sub-feeder will be shared and tapered

Switch Module

- ◆ based on SCIS data
- ◆ will account for varying switch sizes
  - » produces either switch-specific or study area costs
  - » permits company-specific vendor discounts
- ◆ supports either USF or UNEs
  - » for USF it identifies fixed and variable by location
  - » for UNEs it develops cost primitives
    - ◆ flat rated line port
    - ◆ usage-based shared switch and trunk investment
    - ◆ usage-based tandem switching
    - ◆ features

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Expense Module

- ◆ will apply expenses on either a per line or per investment basis (user option)
- ◆ support of expenses for both UNE and USF
- ◆ will transform book expense to forward-looking expense by including:
  - productivity adjustment
  - inflation adjustment
  - any other adjustments

Improved Documentation

- ◆ documentation will be improved and expanded
  - – methodology section will be expanded for new modules
  - – user manual will be improved for usability
  - – a systems manual will be provided to improve the reviewer's understanding of the model

"Fusing" of Modules

◆ all modules will be fused at the level of the report generator

◆ other aspects
  – a new user interface
  – an improved user input layer
  – an improved reporting layer
    » current BCPM capabilities
    » UNE and USF reports
    » new report formats